WHAT IS CLAIMED IS:

1. A method for producing an anti-tumor immune response comprising administration to an individual with a tumor a cell population comprising dendritic cells that have been partially matured *in vitro*, wherein the partially matured dendritic cells can take up and process antigen and are enabled to induce an anti-tumor immune response subsequent to administration to the individual.

2. The method according to claim 1, wherein the dendritic cells are obtained from skin, spleen , bone marrow, thymus, lymph nodes, umbilical cord blood, or peripheral blood.

3. The method according to claim 2, wherein the dendritic cells are obtained from the individual to be treated.

4. The method according to claim 2, wherein the dendritic cells are obtained from a healthy individual HLA-matched to the individual to be treated.

5. The method according to claim 1, wherein the dendritic cells are partially matured in the presence of a dendritic cell maturation agent.

6. The method according to claim 5, wherein the dendritic cell maturation agent is Bacillus Calmette-Guerin (BCG), interferon γ (IFNγ), lipopolysaccharide (LPS), tumor necrosis factor α (TNFα), an imidazoquinoline compound, a synthetic double stranded polyribonucleotide, a agonist of a Toll-like receptor (TLR), a sequence of nucleic acids containing unmethylated CpG motifs known to induce the maturation of DC, or any combination thereof.

7. The method according to claim 6, wherein BCG comprises whole BCG, cell wall constituents of BCG, BCG-derived lipoarabidomannans, or BCG components.

8. The method according to claim 6, wherein the BCG is heat-inactivated BCG or formalin-treated BCG.

9. The method according to claim 6, wherein the effective amount of BCG is about 10^5 to 10^7 cfu per milliliter of tissue culture media and the effective amount of IFNγ is about 100 to about 1000 Units per milliliter of tissue culture media.

10. The method according to claim 6, wherein the imidazoquinoline compound is an imidazoquinoline-4-amine compound.

11. The method according to claim 10, wherein the imidazoquinoline-4-amine compound is 4-amino-2-ethoxymethyl-α,α-dimethyl-1H-imidazol[4,5-c]quinolin-1-ethanol or 1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine, or a derivative thereof.

12. The method according to claim 6, wherein the synthetic double stranded polyribonucleotide is poly[I]:poly[C(12)U].

13. The method according to claim 1, wherein the partially matured dendritic cells are administered directly into the tumor.

14. The method according to claim 1, wherein the partially matured dendritic cells are administered into a tumor bed subsequent to surgical removal or resection of the tumor.

15. The method according to claim 1, wherein the partially matured dendritic cells are administered to a tissue area surrounding the tumor.

16. The method according to claim 1, wherein the partially matured dendritic cells are administered into a lymph node directly draining a tumor area.

17. The method according to claim 1, wherein partially matured dendritic cells are administered directly to a circulatory vessel duct that delivers blood or lymph to the tumor or a tumor afflicted organ.

18. The method according to claim 1, wherein the partially matured dendritic cells are administered into the circulatory system such that the cells are delivered to the tumor or tumor afflicted organ.

19. The method according to claim 1, wherein the partially matured dendritic cells are administered as an adjuvant to radiation therapy, chemotherapy, or combinations thereof.

20. The method according to claim 19, wherein the partially matured dendritic cells are administered prior to, simultaneous with, or subsequent to radiation therapy, chemotherapy, or combinations thereof.

21. A composition comprising dendritic cells partially matured *in vitro* in the presence of a dendritic cell maturation agent combined with a pharmaceutically acceptable carrier for *in vivo* administration.

22. The composition according to claim 21, wherein the partially mature dendritic cells demonstrate an up-regulation of co-stimulatory molecules CD80, CD86 and/or CD54 and retain the ability to uptake and process antigen.

23. The composition according to claim 21, wherein the composition comprises about 10^2 to about 10^{10} partially matured dendritic cells.

24. The composition according to claim 21, wherein the partially matured dendritic cells have been cryopreserved subsequent to partial maturation.

25. The composition according to claim 21, wherein the partially matured dendritic cells have been isolated from a patient to whom they are to be administered.

26. The composition according to claim 21, wherein the partially matured dendritic cells have been HLA matched to an individual to whom they are to be administered.

27. The composition according to claim 21, wherein the partially matured dendritic cells are administered directly into the tumor.

28. The composition according to claim 21, wherein the partially matured dendritic cells are administered into a tumor bed subsequent to surgical removal or resection of the tumor.

29. The composition according to claim 21, wherein the partially matured dendritic cells are administered to an tissue area surrounding the tumor.

30. The composition according to claim 21, wherein the partially matured dendritic cells are administered into a lymph node directly draining a tumor area.

31. The composition according to claim 21, wherein partially matured dendritic cells are administered directly to a circulatory vessel duct that delivers blood or lymph to the tumor, tumor bed, or a tumor afflicted organ.

32. The method according to claim 21, wherein the partially matured dendritic cells are administered into the circulatory system such that the cells are delivered to the tumor, tumor bed, or tumor afflicted organ.